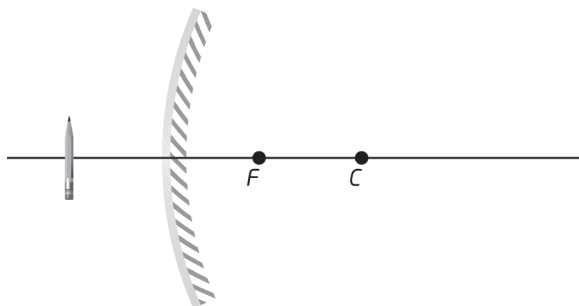


# Section 10.4 Review (Alternative Format)

**Goal** • To review the concepts from Section 10.4.

1. Draw a ray diagram for the convex mirror in this diagram. Use Table 10.5 in your textbook as a guide.



Fill in the blanks to complete the statements in questions 2 to 6.

2. A concave mirror curves \_\_\_\_\_ the object, while a convex mirror curves \_\_\_\_\_ from the object. The focal point and the centre of curvature of a concave mirror are in \_\_\_\_\_ of the mirror, while the focal point and the centre of curvature of a convex mirror are \_\_\_\_\_ the mirror.
3. The value of the focal length of a convex mirror is negative because the focal point is \_\_\_\_\_.
4. An object in front of a concave mirror can be between the mirror and the \_\_\_\_\_, between the focal point and the centre of \_\_\_\_\_, or beyond the \_\_\_\_\_ of \_\_\_\_\_. However, a convex mirror is always between the \_\_\_\_\_ and both the centre of curvature and focal point.
5. Convex mirrors are often used as security mirrors in convenience stores. These mirrors reflect an image of a \_\_\_\_\_.
6. Images in spherical mirrors—either convex or concave—are distorted because of \_\_\_\_\_.



## Section 10.4 Review (Alternative Format)

7. Some vehicles have a two-part side mirror that has a plane mirror with a smaller convex mirror on top of it.

a. What is the advantage of the plane mirror?

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b. What is the advantage of the convex mirror?

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8. A concave mirror has a focal length of  $-5$  cm. An object with a height of 4 cm is 3 cm from the mirror.

a. Use the mirror equation to calculate the image distance,  $d_i$ .

b. Use the magnification equation to calculate the image height,  $h_i$ .

c. Complete the ray diagram below, and use it to check your answers to parts a and b.

